



## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>FP04026</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/KR 2004/001147</b>	(Earliest) Priority Date ( <i>day/month/year</i> ) <b>30 May 2003 (30.05.2003)</b>	International filing date ( <i>day/month/year</i> ) <b>14 May 2004 (14.05.2004)</b>
Applicant <b>LG ELECTRONICS, INC.</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see continuation of this first sheet.

2. ☐ Certain claims were found unsearchable (see continuation of this first sheet)

3. ☐ Unity of invention is lacking (see continuation of this first sheet)

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in the continuation of this first sheet. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

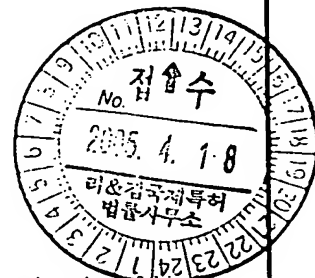
a. the figure of the drawings to be published with the abstract is Figure No. 2

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.





Continuation of first sheet

**10/558434****IAP16 Rec'd PCT/PTO 29 NOV 2005**

Continuation No. IV:

Text of the abstract

(Continuation of item 5 of the first sheet)

The present invention discloses a home network system using a living network control protocol. The home network system includes: a network based on a predetermined protocol; at least one electric device connected to the network; and a network manager connected to the network, for controlling and/or monitoring the electric device, wherein the protocol includes an application layer (60) for handling a message for controlling and monitoring the electric device, a network layer (70) for network-connecting the electric device to the network manager, a data link layer (80) for accessing a shared transmission medium, and a physical layer (90) for providing a physical interface between the electric device and the network manager, wherein the physical layer (90) further includes a special protocol for providing an interface with a dependent transmission medium, and the network layer (70) further includes a home code control sub-layer (71) for managing a home code for network security when accessing the dependent transmission medium.

---



## A. CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: H04L 12/26, 12/46, 29/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: H04LDocumentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
---Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WPI, EPODOC, PAJ, Elsevier, IEE, I3E, IEEEExplore

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Koon-Seok Lee, Hoan-Jong Choi, Chang-Ho Kim, Seung-Myun Baek, 'A new control protocol for home appliances-LnCP.' In: International Symposium on Industrial Electronics, 2001. Proceedings. ISIE 2001. 12-16 June 2001 pages: 286 - 291 volume 1	1-49
X	Yi-Min Wang; Russel, W.; Arora, A.; JunXu; Jagannathan, R.K.; 'Towards dependable home networking: an experience report.' In: Proceedings International Conference on Dependable Systems and Networks, 2000. DSN 200025 - 28 June 2000, Los Alamitos, CA, USA, IEEE Computer Society pages: 43 - 48	1-49

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
24 March 2005 (24.03.2005)Date of mailing of the international search report  
13 April 2005 (13.04.2005)

Name and mailing address of the ISA/ AT  
**Austrian Patent Office**  
Dresdner Straße 87, A-1200 Vienna

Facsimile No. +43 / 1 / 534 24 / 535

Authorized officer  
**ENGLISCH M.**

Telephone No. +43 / 1 / 534 24 / 565

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
**PCT/KR 2004/001147**

Patent document cited  
in search report

Publication  
date

Patent family  
member(s)

Publication  
date

A

none